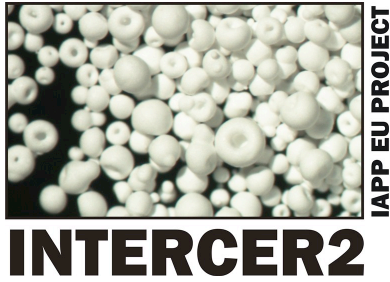




UNIVERSITÀ DEGLI STUDI  
DI TRENTO

Dipartimento di Ingegneria Civile,  
Ambientale e Meccanica



Modelling and optimal design  
of ceramic structures  
with defects and imperfect  
interfaces  
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## AVVISO DI SEMINARIO

Si comunica che **il lunedì 9 dicembre a partire dalle ore 15.00**  
presso l'aula **R2** (via Mesiano 77) si terrà il seguente seminario

### **Breaking symmetry in axially loaded cylindrical shells.**

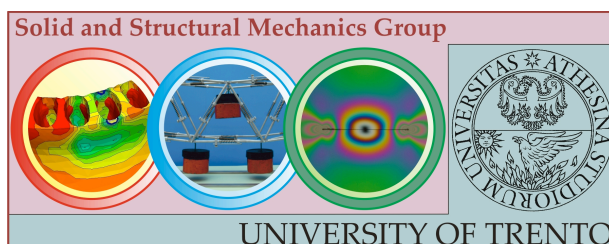
**Prof. Sergio Pellegrino**

California Institute of Technology

The high efficiency of monocoque circular cylindrical shells under axial loading is impaired by their extreme sensitivity to imperfections. This fundamental weakness has been addressed by switching to closely stiffened shells which, however, are much more expensive to manufacture. An alternative approach is to use optimization techniques to design symmetry-breaking wavy cylindrical shells; here the avoidance of imperfection sensitivity is part of the optimization process. It will be shown that optimal shells designed in this way have much higher critical stress and knockdown factors than circular cylindrical shells, and superior mass efficiency.

Tutti gli interessati sono invitati a partecipare.

Il seminario è organizzato dal gruppo di Scienza delle Costruzioni  
(D. Bigoni, L. Deseri, N. Pugno, M. Gei, F. Dal Corso, A. Piccolroaz, R. Springhetti)



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